

**MAKING THE IMPOSSIBLE POSSIBLE:
THE PLA'S CROSS-STRAIT OPERATIONS IN THE 21st CENTURY**

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FOREWORD

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INTRODUCTION

Taiwan is part of China. Beijing's rapidly increased political, economic, and military power has strengthened its belief in one China and its determination to reunify China. The one China policy is twofold. "One Country, Two Systems" is designed to integrate peacefully the *de facto* entities across the strait into one, while allowing Taiwan to preserve its political, economic, and social systems distinct from those in the Mainland, Hong Kong, and Macao. The concept of the use of force is aimed at the ability to wage short, lethal, joint landing operations on its own terms, to ensure Chinese national sovereignty and territorial integrity, regardless of short-term costs, if Taipei's "flexible diplomacy" succeeds in gaining reentry to the United Nations and other international organisations as a sovereign state; if political independence seems imminent; or if drastic political change or chaos occurs on the island. The immediate Chinese objective, however, is to improve cross-strait contacts. Nonetheless, Beijing's impatience and anxieties are greatly compounded by the rapidity of internal and external changes underway in and outside China, and these lead to intense suspicions of the international community's response to China's Taiwan policy and to regional stability.

Perhaps the greatest concern to the international community is the prospect of military operations fought by the People's Liberation Army (PLA) against Taiwan. On this crucial issue, periodic western and Taiwanese speculation has underestimated the possibility of cross-strait operations, since their perception of such operations is based on their own interests, not on China's political, economic, and technological capabilities. Conversely, Beijing sources have exaggerated its own political aspirations and military muscle, without acknowledging the inherent problems with respect to domestic support, operational effectiveness, and foreign reactions.¹ Both perspectives have been too facile, too encumbered by ulterior motives, and hence too prone to black-white generalisations.

The paper draws together the fragmented and often contradictory information that is available on the PLA's potential cross-strait operations, and assesses it against the backdrop of the ongoing Chinese debates on policy, logistics, operational orientations, and choices. Its aim is to present a more complete and updated picture and to move the discussion in a more productive direction. The primary concern of this paper is whether joint landing operations across the Taiwan Strait are possible, both militarily and politically. It raises the following questions:

- to what extent has the PLA modified its defensive land operations to meet the requirements of offensive joint landing operations?;
- can China articulate, build, and maintain the domestic support necessary for cross-strait operations?; and
- under what circumstances can China manage regional reactions to such operations so as to prevent possible foreign intervention?
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The paper reveals troublesome issues and possible options.

JOINT LANDING OPERATIONS

To-day's PLA operational art reflects yesterday's military hardware. This 'lead-time' focus is on massive firepower and military technology--the improved performance capabilities of old model weapons and equipment through its own technological efforts or through the utilisation of foreign technology. Technical difficulties and C2 problems have made this traditional option less than ideal. The consequent effects are the PLA's attempt to purchase some 'key' weapons as a cost-saving device and to incorporate them into indigenously developed weapon systems. The optimised weapons are expected to facilitate achieving operational priority, namely, conducting 'joint' deep strikes by constant maneuver in an attempt to delay, disrupt, and eliminate uncommitted forces and to destroy committed forces in a fully integrated battlefield. This approach to joint landing operations contains elements of fundamental constancy; yet it is never static. It is affected by domestic and external policy considerations and military reforms. Furthermore, even though the PLA officially favours technology-centred joint services landing operations, it remains caught in a straightjacket of tradition.

The term joint operations refers to operations fought by two or more services on the basis of an equal partnership and under unified command designed to achieve strategic or operational objectives within a certain time and space.² Operational forces are composed of corps level service units able to conduct independent battles. The most important element of joint operations is the concept of equal partnership of the services, which reflects changes in the force structure and military technology. The PLA's traditional operations were essentially waged by ground forces with limited air or naval support. Such operations might also involve two or more services, but human factors, rather than weapons, were decisive. Consequently, naval and air forces developed as army adjuncts to secure army flanks or offer limited air and naval cover.

In contrast, an equal partnership among the services aims to transcend land operational art as the primary definer of operations. In other words, different battles are guided by different operational arts reflecting each service's strengths, or different operational arts are utilised to fight ground, naval, and air battles so as to produce more deceptive and decisive effects. Accordingly, war zone command is a co-ordination centre, whereas service command becomes a command centre. This suggests that the Army is no longer in command of all services; instead, the services become autonomous, politically and operationally.

The PLA has in fact failed to reach a consensus on the extent to which services can remain equal and independent of one another. Opponents argue that an unequal partnership persists throughout joint operations, regardless of space and time. Changes in operational space and time often require one service to be a primary force, while others provide support. Joint operations consist of several operational periods or components. A service may be centred on an operational target at a certain space and time, but it may be unable to achieve it without the active support of other services. Over time, the services have become more interdependent and interconnected. But ground forces are and will remain primary, since land battles are decisive. Without this land force core, joint operations cannot produce comprehensive combat effectiveness.³ This view largely echoes the PLA's traditional primary focus on land defence against foreign invasion.

The most important issue emerging from the debates is that of prospective cross-strait joint landing operations. Taiwan lies along busy shipping routes linking the Indian Ocean to the Northwest Pacific. It could control the Mainland coast to the north, sea-lanes in the Philippines to the south and west, and sea-lanes around Korea and Southwest Japan to the east. The average width of the Taiwan Strait is about 200 kilometres, but shipping conditions are poor. Differences between low and high tides are 4-8 metres. In the spring, a dense fog often blockades the strait. A typhoon season normally persists throughout the summer.

The geographic advantages for the targeted defender are reinforced by Taiwan's newly bought or leased military hardware, such as 150 F-16s, 60 Mirage 2000-5s, the modified version of the patriot missile air defence system, 4 E-2T airborne warning and command (AWAC) aircraft, 16 Lafayette-class 'stealth' frigates, and 9 Knox class frigates equipped with ASW capabilities. They form a solid air-naval defence system, but also highlight some weaknesses. Taiwan depends on maritime transport for almost all import and export goods. Even a temporary blockade may easily result in the collapse of the island economy. It is severely short of deep defence space, satellite-based C3I, and a theatre missile defence (TMD) system (even though the newly passed US National Defence Authorisation Act for Fiscal Year 1999 requires the US-Japan TMD system to shelter Taiwan).⁴ Missile strikes may paralyse its naval, air, and ground force bases, located on overpopulated flatlands and vulnerable coastal lines, and isolated by numerous rivers across the island. These vulnerabilities may undermine Taiwan's defence system.

To offset Taiwan's advantages, the PLA's Second Artillery would likely launch preemptive missile attacks on these vital targets, possibly during a typhoon season. Mobile, land-based, solid fueled DF-15 (M-9) battlefield missiles with near pinpoint accuracy, designed to carry a conventional warhead up to 500 kilograms about 600 kilometres, are expected to disarm Taiwan's Navy, Air Force, and defence system and to destroy its waterworks, power plants, and oil-storage facilities. Their performance is substantially improved, partly because of technology transfer from developed countries to China and partly because of China's greater capacity to absorb technology, which further stimulates demand for technology. The US Navy acknowledged that its ships tracked DF-15 battlefield missiles fired during the exercises in 1996, but could not have intercepted them.⁵ This was further strengthened by the Second Artillery's operational art, which stresses "constant manoeuvre, focused strikes." Constant manoeuvre refers to flexible command methods and rapid battlefield manoeuvre, by flexibly utilising troops, firepower, command methods, and combat principles, according to operational objectives and environments, in an effort to produce and gain battlefield initiatives. It allows combat units to fight synchronised missile battles from dispersed locations rather than large bases. Focused strikes concentrate most, if not all, missile firepower on vital targets at strategic and operational directions and destroy them in a short blow. Precision engagements ask units to locate targets, strike them with the highest possible accuracy, assess the effectiveness of the strikes, and attack again if necessary.⁶ Lethal preemptive missile strikes would seek to ensure success in joint landing operations.

Command of the Sea and Air

The development of weapons and equipment has led the PLA to modifying naval and air operational arts. The focus is on command of the sea and air. To develop these ideas, the Navy and the Air Force follow the fundamental land operational principle of “comprehensive operations, focused strikes” aimed at optimising the services’ force potential for synchronised battles, modifying their own operational arts accordingly.

Command of the sea is a century-old dream, since China lost the Sino-Japanese naval battles in 1895. The Chinese naval tradition of coastal defence (as also early Soviet naval thinking) was to deploy more forces on land or islands than on water to conduct effective anti-landing operations.⁷ The operational objective was to support ground operations on land or the littoral landmass. Command of the sea was not its essential purpose.

With the end of the Cold War, officers and scholars agree on the need for more extensive naval capabilities--offshore defence. Offshore defence would extend the defence perimeter to between 200 nautical miles and 400 nautical miles from the coast, and even more in the case of disputed South China Sea islands and reefs. This mandate calls for more offensive, distant operations, to secure interests in those areas. China, it is said, will not build a blue water navy for sea control or disrupt great powers’ sea control, at least not in the near future. Rather, the purpose is to protect sea lanes of communications in Chinese waters, develop the maritime economy on the “maritime territory” regardless of others’ claims, and build the necessary capabilities to resist non-Chinese presence or invasion.⁸ The search for a framework of naval operational art favours command of the sea, with emphasis on concentration, offensive, and logistics support, to crush an opponent’s fleet. This ambitious objective is sustained by a considerable build-up of naval fleets. The Navy, despite technical and technological difficulties, has indigenously designed Han class nuclear attack submarines and Xia class ballistic missile nuclear submarines. The newly commissioned 4,200-ton Luhu destroyer is powered by a Motren Turbine diesel and General Electric LM 2500 gas turbine engines and equipped with Yingji surface-to-surface missiles, a Thomson-CSF Crotale surface-to-air missile system, Whitehead B515 torpedoes, two Zhi-9 (Dauphin) helicopters, and Chinese decoy launchers. The Dayun-class resupply vessel, with a displacement of 11,000 ton, can carry two Super Frelon Sa-321 helicopters for vertical replenishment at sea. The Navy also has Russian 877EKM Kilo class and the modified version of 636 Kilo class conventional attack submarines. Evolving from a unitary force, the Navy has diversified to include surface ships, submarines, missile forces, marines, and land-based naval aviation, thereby widening and fine-tuning its spectrum of capabilities.

To win command of the sea, the Navy would fly to manoeuvre fleets to seize, control, and maintain superiority around the strait. The attempt to assert superiority would utilise available weapons and means to launch surprise, persistent, naval-air-ground fire strikes, aimed at devastating Taiwanese troops, vessels, and support installations. Effective control over the strait would help ground forces to cross it and launch landing assaults. This mission requires the Navy to seek to annihilate Taiwan’s

remaining surface vessels and submarines, blockade the strait fully or prevent Taiwanese reentering into the strait, and thoroughly eliminate all obstacles and mines along the coast. The maintaining of naval superiority would establish a multi-layered, multi-dimensional warning and defence system and ensure the flanks of the fleets.⁹ The command of the sea dimension shows changes in China's naval operations from a defensive to an increasingly offensive focus.

Facing the Mainland's challenge. Taiwan may, the PLA assumes, avoid waging any decisive battles at sea. If so, it would blockade Taiwan's naval bases, while launching soft strikes, such as psychological, electronic, information, and meteorological warfare assaults, which could have significant impacts. These expectations indicate that initiatives and manipulations are central to naval combat actions, since China's Navy is inferior to that of Taiwan. It is the world's third largest in size, but its armament as a whole is obsolete. Over the past decade, reach capabilities have improved only marginally in terms of extending the operational range of existing vessels. Vessels are mostly outmoded and lacking in air defence weaponry. Lack of a long-range surface-to-air missile system and of the ability to detect, track, and intercept incoming air-to-surface or surface-to-surface missiles has raised deep concerns about the naval combat effectiveness. Without improvement in these areas, ground forces cannot be dispatched to Taiwan, resupplied, or sustained.

Indeed, the Navy has attempted to free itself from its second-class service position. A high stress, as previously noted, generally is placed on inter-service co-ordination and support. But the Navy is particularly interested in producing a brand new operational art for synchronising frontal, flank, and rear strikes. To create combat effectiveness, it fosters a variety of methods, including electronic warfare, long-distance fire strikes, and special warfare, sustained by political, economic, and diplomatic manoeuvres and skills. The Navy insists that strikes on Taiwan's C31 will change the technological imbalance.

Like its naval counterpart, the Air Force champions command of the air. China's interest in such capabilities has been long-standing. Mao Zedong was determined to build a powerful air force, and Deng Xiaoping reinforced the commitment: "in future operations, we will achieve nothing without command of the air. The focus of force building is on the air force, which will offer air cover for naval and ground operations."¹⁰ Their desires shape China's air force-building, with emphasis on active, defensive, flexible, and limited air operations. Their missions are aimed at the ability to assist the advance of troops or thwart the advance of an opponent, and to provide short-range interdiction; by extension, such missions often involve the limited destruction of an opponent's military, industrial, and population centres. Close air support and interdiction are to deprive the opponent of the ability to continue fighting, and erode the will of his people. If these targets could be achieved, it might be possible, with a relative small force, to bring an opponent war machine to a halt, thereby rendering that opponent incapable of further resistance.

As a result, China has gradually modernised its Air Force. It is equipped with Sukhoi (SU)-27 fighters--an advanced, powerful, and versatile aircraft armed with R-73 air-to-air missiles; S-300PMU air defence missiles; Mi-6 transport helicopters; Ilyushin-76 heavy transports; and in-flight refueling technology reportedly from Israel, Iran, and Pakistan. Russia licensed co-production of the SU-27s to the Shinnying Aircraft Co., able to produce 15-20 planes per year. The Air Force has begun to broaden the upgrading process in various areas, such as air warning equipment, air transport, seaplanes, helicopters air-launched anti-ship, mass-killing and anti-tank missiles, and airfield installations, seeking to facilitate effectiveness, initiatives, and focused strikes.

At the centre of air operational art is the ambition to integrate air, naval, and ground forces aviation units into a powerful air combat machine. Under its command, the Air Force will plan, organise, and wage unified air operations. "The use of air units for first strike" will focus on carefully selected bottleneck targets, such as radar stations, air defence systems, and air bases. The collapse of such targets will substantially weaken an opponent's early warning, defence, and combat effectiveness. Offensive air operations will be decisive.¹¹ The Air Force insists that air power is equal, if not superior to land and sea power. It is the asserted tool of choice for shaping operations as the supported, rather than the supporting combat element. However, even though improvements of Chinese aircraft in terms of range, speed, payload, and precision weapons have been phenomenal, these will rarely exert decisive effects on land operations. The air inventory is still primarily of 1950~1960s Soviet vintage. Fighters are Chinese-equivalent Mig-19s and 2ls, which are so antiquated as to be a meaningless deterrent against F-16s and Mirage 2000s. Bombers are slow and vulnerable Soviet Tu-16s (H-5s and H-6s). They are unlikely to pierce Taiwan's defence. To make matters worse, the Air Force possesses no in service refueling tankers, nor airborne warning and command platforms. Taiwan's limited air space may also thwart large-scale air operations. Air power is a devastating instrument of attrition when unopposed, but it is not necessarily capable of decisive shock, and thus, cannot alone secure victory. The extent to which air operations can be fought depends on preemptive missile strikes. If the Second Artillery and other services' tactical missile units succeeded in paralysing Taiwan's defence system, then, of course, the Air Force could launch offensive operations.

Debates on command of the sea and air suggest unhappiness of the Navy and the Air Force towards land-dominated operational art, and concern about their abilities to destroy designated targets in future joint landing operations. The new consensus focuses on causal links between command of the sea and air. Without the latter, there is no command of the sea. The debates, to some extent, also mirror the ideals of Alfred Mahan, Giulio Douhet, and Billy Mitchell and their impacts on this generation of officers and scholars, though most of these strategists' ideals seem irrelevant to contemporary joint operations. But the most crucial questions related to forming a strong partnership between the Navy and the Air Force, developing independent operational arts, and controlling the sea and air with obsolete weapons, remain unresolved.

Ground Battles

The PLA is a land power. The streamlining of the Army makes it much leaner and reflects a narrower and more focused territorial mandate. It has 24 group armies. Each has about 50,000 soldiers, divided into three divisions combining a variety of infantry, artillery, tank, engineering anti-chemical, aviation, and support units. The most astonishing development is the establishment of the Army's aviation units, equipped with Russian Mi-17 helicopter gunships, Chinese Zhi-9 helicopter gunships, Russian Mi-8 and Mi-171 transport helicopters, and US UH-60 helicopters. These units have improved ground force projection and rapid response capabilities and have led to intra-service co-ordination among branches and inter-service exercises with the Navy and the Air Force.

The PLA's joint operational art, charted by the Army, stresses comprehensive combat forces, the concentration of superior forces, and lethal strikes. Comprehensive combat forces seek the co-ordination of service forces to optimise changes in force and firepower structures. Although each service may in differing circumstances be a primary or secondary force, all must focus on how best to achieve operational targets. A rational countermeasure against advanced weapons is a high-low mix, which will reduce advanced weapons' utility and increase the cost of protecting them. The advanced weapons will then slowly fade and drain its resources. The mixed firepower is designed to wear down an opponent in a series of slugging matches. A decisive edge goes to the side that launches a preemptive strike. The objective is physical destruction. Use of extra-reinforced forces is to create superiority within space and time and to enhance success. Accurate, lethal strikes will target an opponent's front, flanks, and rears. The first echelon will, it is argued, push for quick breakthroughs regardless of costs; air-landing forces will assault vital points at the rear; and mobile troops will swiftly outflank the opponent, seeking to cut off communications and connections between the deep rear and frontal troops.

The most powerful branch of the Army is its upgraded artillery units, which are rated among the best in the world.¹² Artillery firepower will be utilised to strengthen joint landing assaults. Intensive, multi-targets shelling will, it is hoped, crush an opponent's defence and ensure successful landing. Short-range ground forces artillery, along with long-range naval, air, and second artillery tire groups, form a fire network. Among field artillery batteries, multi-launch rocket systems can produce rapid firepower strong enough to clear land and underwater mine fields around landing areas, launch carpet shelling over front positions, or support landing infantry soldiers. To create stronger artillery firepower, civilian ships will be transformed into fire platforms. Once ground, naval, and air firepower has cleared obstacles and minefields at beaches, landing craft, amphibious tanks, and other vehicles will carry assault troops to the beaches.

No doubt, technology enhances the decisive nature of land operations. Land environments offer ground soldiers opportunities to challenge target acquisition systems in ways that aircraft and war ships can never achieve. Lethality is also increased on the ground, where soldiers can disperse or utilise terrain, weather, populations, and other ground-based environments to their advantage. In other words, joint landing operations cannot and will not be won without ground battles. Ground forces may face great

operational difficulty in attempting to implement their ambitious plan. Although it is easy to mount field artillery batteries on civilian ships, they are unsuitable for naval battles. Gunners are trained for ground, not naval operations. Difficulties will sharply reduce fire support. Yet, despite the factors, ground forces remain in a dominant position with regard to joint landing operations.

C3I

The PLA recognises the pivotal role of advanced command, control, communications, and intelligence (C3I) in joint landing operations. Joint landing operations require the PLA to establish strong C3I connecting all services, vertically and horizontally. In spite of debates about who is boss, they understand (in theory) that central command nominates commander and commissar of war zone joint operations headquarters. The headquarters consists of all services commanders and commissars. Under command of joint operations headquarters, services jointly fight operations. The proposed top-down command structure is a war zone, war zone services command, and combat troops. This structure is compatible with the PLA's current command structure and help incorporate services command and combat troops into joint operations headquarters. Over the last two decades of restructuring, the PLA has become more efficient, effective, and modernised. The computerised C3I system is common to all levels of headquarters. But a hierarchical issue inherent in C3I is the relationship between war zone and services headquarters. Commanders are unfamiliar with other services' operations. The debates on an equal partnership in joint landing operations have divided the services. The problem is also embedded in the current education system, which remains *independently* service-oriented, rather than joint services operations-oriented. Though some military colleges and universities offer joint operations courses and foster inter-service exchange or joint war games, such efforts are still limited. The PLA, it must be stressed, is illiterate as concerns joint services operations. The debates on joint landing operations evince 'a power struggle' among services, rather than a concern as to how to ensure effective command and control.

On this issue, the PLA still debates who commands whom. The Navy holds that it should be responsible for joint landing formations. Its mission entails two parts: shipping and supporting landing troops, and defending military and civilian fleets. Ground forces have only one mission--smashing an opponent's coastal defence and capturing positions. During the crossing of the strait, they organise neither offence nor defence; the Navy is in command. On the other hand, the Army argues that the Navy is only a means to ship troops. The most decisive battles are on the land. The Army was and remains in command!

This controversy raises the question of command power hand-over, since the Navy is unable to conduct ground operations, and the Army cannot command naval formations at sea. The shifting of command power may reduce assault effectiveness, and also create combat chaos and casualties. One faction favours transferring power, when joint formations are approaching landing areas or ground forces organise fire strikes and landing assaults. The other contends that the Navy should hand over power, only when

ground forces occupy and firmly control landing areas, secure defence, and prepare for deep assaults. Apparently, both sides share the view that during the cross-strait period (differently defined), there is no relationship of command and commanded between the Navy and the Army; the Navy is charged with transportation, while ground forces are passengers of the Navy.

The most embarrassing issue is poor inter-service communications. Each service has its own C3I system, utilising different models of computers and software. They are incompatible with one another. Even within each service, C3I sometimes is ineffective. The quality of officers is often a factor that neutralises effectiveness. Normally, the C3I equipment is the most advanced and top quality of products in China. But user officers are often unable to handle the equipment correctly because of constant institutional reforms and regular officer discharges. Incompatible C3I models and poor user qualities minimise prospective joint landing operations effectiveness.

Obviously, the PLA's operational art does not fit into joint landing operations. Different war zones often have different geographical environments and operational targets, which always call for different operational arts reflecting particular priorities and agendas. These operational arts may sometimes be contradictory. One war zone's operational art may be unsuitable for other war zones and services. But the military division of power makes war zones and services independent from one another. Lack of a rotation and academic connections among them may directly or indirectly worsen the C3I problem.

PLA politics reflects domestic constraints on joint landing operations. These constraints have forced the PLA to orchestrate a massive misinformation effort, to mask its weakness and, later, to exaggerate its strength. Despite its highly misleading efforts, the PLA itself becomes deeply concerned about a well-defined, unified operational art, compatible with the ever-more-rapidly evolving requirements of high technology on offensive joint landing operations. Debating operations -- even with an explicit purpose of averting them -- is not the same as waging operations. The ultimate test is not whether it has better weapons and whether it succeeds in destroying an opponent physically, but whether it reaches objectives on politically favourable terms and at an acceptable cost. The PLA's design rests on employing battlefield missiles or weapons of mass destruction, which will deprive Taiwan's countermeasure and counterstrike capabilities and eventually lead to its sea and air control. The achieving of this objective may eventually inflict heavy casualties and collateral damages. Such tradition-oriented 'killing fields' certainly do not equate with contemporary 'digitised' or 'surgical' operations, which make military actions cleaner through the utilisation of an array of sensors and data-fusion technologies to obtain a near-perfect picture of the battlefield, in order to provide the location and status of opposing Taiwanese units, thus to disperse the 'fog of war.' To seek rational options, the Chinese state and party have motivated, encouraged, and tolerated debates on new ideas and approaches, based on people's war under high-tech conditions. In fact, the debates are a process of justifying society-centred, firepower or military technology-oriented operations and of satisfying the psychological need to

build self-confidence and self-respect. The strategic and operational leadership remains land-dominated.

DOMESTIC SUPPORT

Domestic political and material support stands at the core of joint landing operations. Such support requires the joint efforts of the State and society. But at present the Chinese state and society are at odds with themselves. Institutional and economic reforms have provided a powerful driving force for the rise of a pluralist society which reflected geographically diversified regions and interests. These competing authorities, despite lack of inputs to the state and the distributive effects of the state outputs to them, enjoy freedom to interpret state policies and implement modified policies for self-management, self-sufficiency, and self-regulation. But the state in the hands of the Communist Party remains remarkably authoritarian and still attempts to impose authoritarian control on society. Its political conviction on the issue of control rests on the assumptions—perceived need for centralised power, distrust of a pluralist society, and fear of local kingdoms. The consequent policy orientations and choices are aimed at penetrating the whole of society so as to integrate society into the state, in order to monopolise final authority, but the state is unable to pervade the local scene. This visible disconnection between the state and society indicates that mobilisation for PLA joint landing operations against Taiwan cannot be grounded in the state alone, but must be rooted in the state and society, which will provide the necessary political and material support. Without this foundation, on which integration and homogeneity must rest, domestic support will probably, though perhaps not invariably, be doomed, when costs are substantial and benefits diffuse. The certitude of failure and success depends on the extent to which the state manages its relations with society and on the extent to which society is willing to accept self-sacrifice.

The linkage of the state and society lies in grassroots politics. Grassroots governments are expected to manage local policy affairs in the name of the state or carry the messages of the state to all localities, while self-policing street and village committees, powerful state enterprises, and self-sufficient peasants increasingly focus their attention on economic interests. This division of power has, indeed, weakened the leading role of the state in society. Street and village committees remain, in theory, ‘an arm’ of government, but they become depoliticised. State enterprises are market-oriented, but governments remain the owner. Peasants have freedom to determine what kind of grains they like to plant, where they like to sell their products, and how to sell them, but the farmland is collectively owned. As a result of these contradictions, clearly, society no longer provides free of charge service to the state, whereas the state pays only lip (policy) service to street and village committees, state enterprises, and peasants.

The separation of power between the government and the party further prevents the party from political intervention in economic sectors. As a result, grassroots party organisations are on the verge of self-destruction. In rural areas, most, if not all village party branches are collapsed, since the majority of young, educated, and skilled party members are leaving their hometowns for cities to explore economic opportunities. In

urban areas, the by-product of economic reforms is unemployment and underemployment, leading to the dissolution of grassroots party branches in state enterprises, since unemployed and underemployed party members are separated from their work units. Lack of political leadership from below and financial support from above reduces the party's influence on its traditional power base, i.e., workers and peasants. These conditioning factors will determine the credibility, and thus effectiveness, of domestic support for putative joint landing operations.

The 1990s have seen the emergence of a better trained, more technologically advanced, and more professional PLA. The massive growth in its capabilities does not, however, mean that the PLA is a combat ready force. The inadequacy of logistics support means and resources neutralises combat readiness.¹³ To solve the problem, the PLA has refocused on society in the hope of recreating a traditional, decentralised, service or war zone-oriented, and society-centred logistics support network that would be sufficient to enable operations. But the incompatibility between old mind-sets and the 'socialist' market economy frustrates the PLA, since the societal foundation on which it relied no longer exists, as a result of current institutional and economic reforms. The logistics division of power between 'feuding hierarchies' and 'territorial units' further jeopardises the PLA's interest and ability to develop a joint, unified, and comprehensive operational logistics support system for joint landing operations. Logistics support has become the bottleneck of operations.

Logistics Support Structure

Current logistics reforms favour the rebuilding of an enlarged and localised support network to permit 'people's war' under high-tech conditions. The network is to distribute military resources among civilian sectors and lever civilian resources, in line with the principles of "the compatibility of military logistics with civilian supply" and "the integration of logistics for war and peace." The civilian channels are utilised to share military financial burdens and secure supply, medical care, and maintenance for local troops within a war zone.¹⁴ The reforms have started with the supplying of automobile spare parts through signing contracts with local civilian companies, which store and provide spare parts for local units, without developing a distinct institutional structure co-ordinating military demand and civilian supply. This co-operation increases the efficiency of military financial resources in peacetime. More important, it will, the PLA hopes, minimise the risk posed by an opponent seeking to bomb military supply centres in wartime, since weapons cannot recognise differences between military and civilian targets. The vulnerability of weapons is a defining guide to the rebuilding of the logistic support network.

The PLA pilot project to test its 'new' old idea of people's logistics support was launched in the Nanjing war zone; here, 90 percent of all automobile spare parts at the brigade level and above and 80 percent of steel, timber, and mechanical and electronic products are now provided by civilians on a contract basis.¹⁵ This system has spilled over to other areas: newly built highways have been transformed into field runways for local Air Force units, and newly built harbours and airports have contingency plans for military

purposes. Meanwhile, the PLA provides a variety of services to the civilian partners, to help sustain local economic development and, in turn, to increase its own revenues. Even though the PLA was ordered to “abandon its unregulatory and lucrative business activities” in 1998, some money-making machines, i.e., military warehouses, hospitals, railways, airports, and harbours, remain and will continue to be open to co-civilian exploitation; militarily owned and military-civilian joint venture enterprises produce and will continue to produce dual-purpose goods for domestic and foreign markets.¹⁶ The essence of “abandoning business activities” is in fact to regulate and restructure such activities, making them more efficient, more profitable, and more manageable. Reciprocal business activities will strengthen their connections and ties.

Despite its efforts, the PLA's continuing deficiency of resources has slowed its weaponry and equipment development. A solution, according to the PLA and the state, is to utilise civilian resources fully. Since the introduction of economic reforms, civilian sectors have absorbed large quantities of advanced foreign technology. The conversion of such technology into military use will proceed, to facilitate immediate improvement of commissioned weapons and equipment and accelerate modernisation programs. Following the principles of “more research, less production,” “high quality, small quantity,” and “reserving more technology and fewer weapons,” the PLA stresses research and design. To spend defence money wisely, it prefers military-civilian joint programs for the development of high-tech weapons and equipment, trying to maximise the leverage of civilian capital, industrial, and technological resources.

This logistics structure reflects China's national defence strategy priorities. The active defence strategy focuses on “comprehensive national strength,” and the autonomy of war zones, services, and branches. This centralisation-decentralisation, or “walking on two legs” approach requires a combination of civilian and military resources for “people's war,” and that all levels of command store the war materials for their own operations, regardless of economic benefits and costs. The outcome is waste of resources. The cycle of stored military goods is so long that some materials are untouched for decades and become useless. The high command is reluctant to make decisions on how to deal with useless goods. The structural issue of developing and wasting resources simultaneously will persist through the logistics reforms era.

Central to the rebuilding of a joint logistics support structure is the absence of an institution responsible for integrating the civilian sectors into the military logistics support system. Political indecision in response to this issue may jeopardise logistics support. Within this context, the joint logistics support system remains and will remain largely ineffective.

Naval-Air-Ground Logistics Support Units

The substantial and long-overdue objective of “one logistics system for all services” would restructure the logistics support system. It is designed to empower war zones to command services logistics support. The advantages envisioned are numerous. Unified command and control (C2) of logistics support under the command of a war

zone would reinforce rapid response logistics support and thus increase combat effectiveness. Support mechanisms would be directed at rationalising supply centres across a war zone and preventing resource waste. The key is to set up a unified, top-down, war zone-based, logistics planning and supply system. The PLA insists that the new system should reflect regional priorities and agendas. In other words, the PLA seeks to avoid imposing a model on all war zones, believing that it is unnecessary to establish a unified logistics system across the PLA. Accordingly, in a naval-dominated area, the Navy would be responsible for logistics command for all services, whereas in a ground-dominated area, the Army would be in command of logistics support.¹⁷

The newly established naval-air-ground rapid response logistics support units would synchronise support for mobility-oriented combat units, which focus on speed, lethality, and seizure of the initiative to defeat an opponent. To achieve this objective, combat units require sustainable logistics support, including weapons, ammunitions, medical care, fuel, water, food, and technical maintenance. The consequent focus is on the capabilities of special logistics support brigades, to ensure mobility along main supply routes, terrain visualisation, mobility and breaching support to manoeuvre units, and C31. Such support units are expected to be easily integrated into other units.

The PLA sees that readjustment of the force structure is necessary in order to reinforce naval-air-ground mobile logistics support units. With reductions in regular forces, an increase in the portion of rapid response support units under command of the General Logistics Department (GLD) or under war zones command will strengthen rapid response capabilities. The priority of restructuring logistics support forces centres on key war zones and on key directions to provide them more human, financial, and material resources. On the other hand, joint landing operations require the PLA to organise rapid response logistics support units across different services and branches. Based on the current force structure, prospective hot spot war zones should select hospitals, warehouses, maintenance, and transportation units for intensive training and make sure that they have cross-war zone combat support capabilities.

According to the PLA's support priorities and agendas, the group army logistics department is a command, not a supply centre. Local troops and governments are expected to store and provide fuel and food for troops on their way to a battlefield. Ammunitions, weapons and equipment are sent directly to massed areas from strategic supply centres. Logistics command of a war zone's support units is handed over to the group army at massed areas to ensure operational logistics support. Logistics support involves comprehensive, light, and basic units. Comprehensive support units are responsible for the first echelon of groups army operations. Light support units are to provide reinforced, mobile support, or can quickly be expanded into comprehensive support units. Basic support units only have the basic structure, which can then, if and when necessary, be developed into light support units. Under command of the war zone, they regularly participate in the group army-level manoeuvres in order to make them compatible.

For naval logistics support, land bases are essential, support at sea is a focus, and the final goal is to integrate land with sea support means. The naval priority is the organising of support units, such as ammunition preparations, repair, medical rescue, transportation, fuel, harbour, and airport maintenance. Such support entails two levels of activity. An ocean-going (operational) support fleet is designed to include large fuel/water, trailer, rescue, medical, and repair vessels to provide supply for the combined fleet, while medium and small vessels provide offshore support.

The Air Force centres on comprehensive support for combined air operations, including Army and Navy aviation forces. The restructuring of the air logistics support system is aimed at forming a network of deep, multi-echelon support, in an effort to guarantee logistics supplies at front combat units and rear bases, with more resources directed to front units, main directions, and key bases, than to second echelons and secondary directions and bases. Conversely, the Second Artillery is interested in support capabilities that hide materials and improve mobility. The key is to build rapid response support units and improve C31 so as to provide comprehensive support. The priorities and agendas demonstrate that the rapid response support units have support capabilities either within fleets and war zones, or across fleets and war zones.

The PLA is confronted with a nightmare. Services, war zones, and branches have their own priorities and agendas for logistics support. Overlapping programs are run by different services, war zones, and branches and compete with one another for limited funding. Institutional reforms have eliminated some units; yet the PLA continues to spend money on the houses, airports, warehouses, and harbours of these eliminated units. Limited resources are diverted. In addition, the PLA's reserves are mainly composed of well-trained discharged soldiers and officers, not high-tech people. The absence of a plan to recruit specialists for joint landing operations undermines the effectiveness of logistics support for high-tech units, such as the Second Artillery, the Navy, and the Air Force.

Logistics Mobilisation

The anticipated logistics mobilisation to meet the demands of future cross-strait operations calls for strong naval power projection capabilities, which include an airlift capability, pre-positioning of heavy equipment on ships and ashore, a sealift capability, and the ready reserve force. The Navy's own transport capacities fail to provide sufficiently potent means, and thus, make the Navy dependent on China's relatively modernised merchant marine and fishing fleet.¹⁸ The merchant marine, namely, China's Ocean Shipping Corporation (Groups), has 600 large, well-equipped vessels with the achieved and projected annual tonnage of 17 million dead weight tons. The fishing fleet consists of over 317,000 boats, with the tonnage of 22.4 million dead weight tons, operating on offshore waters.¹⁹ Besides their huge transport capabilities, their advanced radars and sonars may also no doubt be utilised to detect an opponent's surface ships and submarines. These more extensive and projected capabilities will, to some extent, offset the Navy's lack of landing vessels and battlefield information, and strengthen naval mobility and flexibility of operation and response options across the strait.

Each coastal war zone has enough civilian vessel to transport several group armies to cross the strait. The focus of acquiring ships should, commanders and scholars suggest, be on state-owned, well-organised, ocean shipping companies. The acquisition of medium and small fishing boats will increase landing efficiency, allowing troops transfers from large vessels to landing areas. The decks and hulls of civilian ships need to be modified according to operational requirements, such as installing self-defence, mine-sweeping, fire-fighting, medical care, rescue, and helicopter platform equipment to improve survivability.²⁰ Recent developments on transport installations appear to support such mobilisation. Along the strait, central and local transport agencies have built deep-water berths and harbours, equipped with advanced telecommunication systems and well connected with air, railway, and highway networks. More important, war zone headquarters and local transport agencies now constitute a framework for a maritime transport command centre responsible for shipping troops, loading and unloading war materials, harbours management, and equipment maintenance. Taking advantage of civilian transport capabilities thus compensates for the PLA's lack of transport means.

But local governments often ignore the importance of national defence. Even though there are many civilian ships available to operations, as yet, few fit military operations, none are roll-on/roll-off, and large technical support vessels for missiles/torpedoes replenishment, fuel/water supply, and medical care remain non-existent.²¹ Newly built harbours are themselves rarely equipped with roll-on/roll-off installations. They are not optimally located. The operational front is short of large harbours; large vessels have to wait for high tides to enter relevant harbours. These issues arise from the coexistence of different ownerships. State ownership is shrinking. Foreign, private, and joint ownerships are increasing. Joint ventures of state-owned enterprises with foreign and private companies have weakened the state-owned enterprises' leadership, as business decisions and activities are often made by the new boards of directors. Clearly, these new issues challenge logistics mobilisation prospects.

The core challenge is that the PLA lacks the laws and regulations needed for the requisition of supplies and draft personnel, and a systematic framework for mobilisation.²² Without them, the PLA is unable to ensure societal support. Legalisation on mobilisation can help explain mobilisation principles, procedures, agencies, jurisdiction, and contents. With appropriate laws and regulations, the PLA and local governments can establish channels and standards for the exchange of information on human resources, telecommunications capabilities, electric power, science and technology development, and civil defence. At present, however, most of the information is unreliable and sometimes contradictory, because governments are no longer responsible for managing economic sectors and because enterprises and governmental agencies have no obligations to provide information to the PLA.

The economic structure of a potential war zone casts doubt on mobilisation. Along the coast of the designated war zone, the population is dense, but agriculture is underdeveloped. During operations, troops, militias, and supporting labour across China will be massed in this area, and will need large quantities of food products. But the area cannot provide enough food. The food issue becomes more complicated. On the strait and

during landing periods, the troops do not, and will not, have the means to boil water or cook traditional, hot Chinese food. Most grassroots units do not have field cooking and fridge trucks (they still utilise traditional methods, digging holes in the ground to install pans or woks to cook food). Tides, rain, and typhoons may also disrupt food supplies.²³

The frustrations explain the necessity for logistics mobilisation legislation. The state has little choice but to embark on a serious legalisation program to address these issues. Yet, the state appears unlikely to pass relevant laws and regulations in the foreseeable future, perhaps because operations are viewed as a possible choice but not a real or immediately urgent choice. To implement logistics mobilisation requires authoritarian control which has, however, collapsed as a consequence of institutional and economic reforms in China.

Domestic politics set constraints on societal support for joint landing operations, but the constraints do not in themselves determine the operations. This issue largely reflects a political-societal-military composite, which is an amorphous, not necessarily homogeneous but nonetheless distinct coalition of political, societal, and military interests. The PLA tries to remain integrated within this composite and reaffirms a society-centred logistics support framework as political appreciation. The state and the PLA have, however, failed to adapt it to fundamentally changed environments or to narrow the gaps between aspirations and realities. Wishful thinking about a desirable and essential society-centred logistics support for cross-strait operations will remain just that, given the absence of a formal institution, a rational force structure, and well-defined laws and regulations. The state today is unable to integrate civilian resources, over which it is losing control, into military ones and to convert its national economic strength into a stronger war machine, since profits now largely determine the relationship between the state and society. Lack of economic incentives is likely to minimise the effectiveness of the societal support that would be necessary for operations. From a purely logistics point of view, the PLA has extremely limited power projection and support capabilities. Its logistics leg remains 'short,' compared to its operational leg.

REGIONAL REACTIONS

Security arrangements remain elusive in East and Southeast Asia, despite potential threats of joint landing operations to regional stability and prosperity. Regional powers disagree on what forms of security arrangements are desirable and what priorities they should work on. As a regional power, China's foreign policy centres on "peace and development." The objective is to create a peaceful environment, in which China can devote most of its energies to economic development. Consequently, Beijing is eager to find capital, markets, and technology in the United States, West Europe, and Japan. At the same time, it draws upon a network of ethnic Chinese abroad, particular in Hong Kong, Taiwan, and Southeast Asia, to provide resources of financial capital, entrepreneurial talent, managerial know-how, and scientific expertise. The return of Hong Kong to China has reinforced its competitive advantage in economic development. Improved ties with Russia, Kazakhstan, Kyrgyzstan, and Tajikistan have secured the northern borders and contributed to the formalising of the northern security arrangements

and confidence-building mechanisms. To the Southwest of China, though India tested nuclear bombs in May 1998, Beijing and New Delhi remain committed to a peaceful solution for territorial disputes. Relations with Vietnam have also become amicable, but maritime border tensions remain. China does not, in fact, face any immediate threats from neighbours. Thus, naturally, Taiwan is China's top foreign and defence policy concern.

On the other hand, Taiwan's foreign policy is to internationalise the Taiwan issue. It seeks the commitments of regional powers, to gain political support or at least some sympathy, and to deter potential PLA operations. Meanwhile, Taiwan gradually shifts its mainland policy focus from 'non-political' or narrow economic talks to political and economic talks between 'non-official' representatives of Beijing and Taipei in hope of regulising cross-strait relations. Regularised relations will eventually ensure prosperity and security across the strait and in East and Southeast Asia. As it is commonly recognised as the sole legitimate government of China, Beijing insists on its authority to manage the Taiwan issue, whether through the use of force or peaceful means and firmly opposes any attempts to internationalise the issue. For Beijing, any intervention policy sought by regional powers would legitimise China's interference in their own domestic affairs. Though security arrangements, such as ASEAN and the Japan-US Security Treaty, may serve as a shield in protecting the stability of East and Southeast Asian states, foreign military intervention may either paralyse or inflame the region. The Taiwan issue will most likely continue to divide East and Southeast Asia.

ASEAN

The PLA is worried about potential reactions of the Association of Southeast Asian Nations (ASEAN) to joint landing operations.²⁴ Maritime territorial disputes have sometimes intensified regional tensions. China may not seek to take over any country by attack, subversion, or economic domination, but territorial disputes and a gradually modernised PLA do threaten the stability in the South China Sea. In pursuit of parity and superiority, ASEAN has acquired an array of advanced air and naval weaponry and has sought informal or formal bilateral security partnerships. For example, Malaysia has bought British Hawks and frigates, American F-16s and Russian Mig-29s, while reassessing its defence policies that will include potential military links with other countries. Thailand has even bought a small aircraft carrier from Spain (the first for any East and Southeast Asian country since 1945). Singapore is upgrading its F-5E/F fleet, with the Italian FIAR Grifo-F pulse-Doppler multi-mode radar, a new weapons delivery and navigation system (WDNS), the cockpit, and defensive aids; it also grants the use of facilities to American forces. Indonesia has reached a defence agreement with Australia in order to thwart any 'adverse challenges,' purchased British Hawks, and proposed a \$600 million arms package from Russia, including SU-30s and Mi-17 helicopters. The Philippines and Britain have signed a memorandum of understanding that pledged exchanges of information on defence requirements, defence doctrine, technology transfer, and defence-related matters.²⁵ The financial crisis across the region may postpone their planned arms purchases. The weaponry and security measures are implicitly, if not explicitly, targeted against China.

ASEAN is not a military alliance or a collective security pact, but its members have developed an elaborate and interlocking network of bilateral defence and security ties. Such cooperation entails intelligence sharing, regional border cooperation against insurgency, drug trafficking, smuggling and illegal migration, joint military exercises involving ground, air, and naval forces, exchange of personnel for military education and training at each other's military institutions, joint anti-piracy patrols, and provision of field training facilities. Close cooperation does not neutralise their inter-state territorial disputes, such as the Malaysia-Singapore dispute over the Pedra Branca island off the Johor coast, the Malaysia-Indonesia dispute over Sipadan and Ligitan islands in the Sulawesi Sea, the Malaysia-Brunei dispute over Limbang, and the lingering Philippines-Malaysia dispute over Sabah. Such disputes may disrupt their relations. Unlike its ASEAN counterparts, Singapore has expressed its concerns about Beijing-Taibei ties, claiming that "if either one is damaged, Singapore will suffer a loss; if both are damaged, its loss will be doubled."²⁶ For Singapore, Taiwan is a troublesome source of instability in East Asia, yet not as regards the South China Sea disputes. Other ASEAN members downplay such security concerns.

The low-key approach reflects the ASEAN philosophy and code of conduct. Its philosophy is to establish a peace zone, freedom, and neutrality, which was originally utilised to prevent internal communist subversion, backed by the former Soviet Union, China, and Vietnam; and its code of conduct emphasises self-inhibiting behaviour: non-interference in internal affairs, non-use of force, peaceful settlement of disputes, and regional solutions for regional problems. In fact, this distinct tradition nurtures a post-Cold War ASEAN Regional Forum (ARF), an annual ministerial-level discussion on security, defence transparency, and confidence-building measures. The ARF culture is to stress consensus and incrementalism, i.e., ARF moves forward only at a pace comfortable to all participants, with non-binding, voluntary agreements.²⁷ The inability of ARF to become an effective regional security regime is partly due to lack of a formal institution for coordination and management. Each ASEAN country hosting annual conferences is responsible for activities. Without a permanent institution to manage consultative processes, promote confidence-building measures, and create the machinery to investigate disputes, its role and effectiveness as a conflict resolution means is in question. Partly, it has never contemplated a grand scheme for a regional collective self-defence, even though it remains committed to the development of a regional security dialogue.

The basic security issue of ARF concerns the South China Sea territorial disputes, which are cautiously addressed at informal or private meetings. Other security issues, such as potential Beijing-Taibei and Korean Peninsula conflicts, are not even on the agenda. Clearly, ASEAN members attempt to avoid any formal multilateral discussions, direct confrontations, or provocative actions that China could perceive as part of a policy of 'containment,' perhaps orchestrated by a superpower. (ASEAN claims a right to determine the ARF's agenda). Their cautious approach to the territorial disputes seems to coincide with China's expectations. Beijing is more interested in and more comfortable with bilateral discussions, which provide a chance to maximise self-interests. The failure to raise sensitive issues in meaningful discussions indicates that ARF is unlikely produce

any multilateral framework for the South China Sea issue in the near future. ARF is a consultative body attempting to enhance China's interest in regional cooperation; it is not a multilateral forum intended to solve security issues.

On the other hand, the division of power frustrates China's approach to ASEAN. Beijing's Foreign Ministry has changed its position from vigorous defence of its territorial claims in the South China Sea to active involvement in a dialogue with ASEAN states and has even promised to accept the Law of the Sea as a basis for the settlement of the Nansha islands (Spratly Islands). At the 1998 Asia Pacific Economic Cooperation (APEC) forum, Jiang Zemin encouraged his ASEAN counterparts to put the sovereignty issue aside and jointly develop the South China Sea resources.²⁸ The PLA is inflexible towards territorial disputes in the South China Sea and, by extension, suspicious of ASEAN's attitudes towards Taiwan. Its reasoning may be sound. ASEAN states are unhappy with the unsettled territorial disputes, and their economic links with Taiwan remain strong. The Southeast Asian financial crisis may also lead them to explore all available means to improve relations with Taiwan in an effort to save their troubled economies. Taiwan has the fourth largest foreign currency reserve in the world and is willing to provide financial aid. But they need to reestablish official links with Taiwan to facilitate aid negotiations. The rapprochement between Taiwan and ASEAN members may have a negative impact on potential joint landing operations.

But ASEAN members only discuss 'regional' security issues. It is unlikely that they will be involved in any Beijing-Taibei conflicts. Even if they fear a powerful unified China, they may accept the fact. On humanitarian grounds, however, they may show moral support for the Taiwanese people and this could deeply embarrass China in the international community.

Japan

The PLA perceives Japan as a potential barrier to joint landing operations against Taiwan. Japan's political ambitions, strategic interests, military capabilities, and historic links with Taiwan may result in various scenarios--for example, jamming the PLA's C31, collecting and providing intelligence to Taiwan, or even militarily intervening in the event of joint landing operations. These scenarios would, in fact, infringe on the Japanese Peace Constitution, which renounces "war as a sovereign right of the nation and the threat or use of force as a mean of settling conflicts." Yet Tokyo has shifted attention to political and security issues from its narrower past concentration on economic growth, which kept Japan lightly armed, traded bases on its soil for security guarantees, avoided any commitment to a collective security regime, and opposed the dispatch of Self Defence Force (SDF) troops for overseas missions. Fearing that China's economic growth may translate into military muscle, Japan sees China as a potential, if not immediate, enemy.

Changes in the political environment has fostered Japan's ambition to protect a thousand miles of sea-lanes in the Western Pacific, covering defence areas beyond its territorial waters up to Taiwan and Southeast Asia. Tokyo has for some time planned the

defence of sea-lanes of communication to ensure the continued flow of oil and other vital raw materials, but it had little hope of achieving this objective without US military support. To strengthen its military cooperation with the US, it adopted the strategy of forward defence. The Ground Self Defence Force (GSDF) has assumed a larger role in the control over Japan's straits; the Maritime Self Defence Force (MSDF) protects home islands and 1,000 miles of sea lanes; and the Air Self Defence Force (ASDF) is responsible for land and maritime air defence. Japanese forces, directed to crush any potential attacks on the sea, remain central to its strategy, which marked a dramatic expansion of its traditional land defence.²⁹

In 1987, Tokyo broke its defence budget one percent ceiling. Its military spending was still a relatively small percentage of gross national product, but it was beyond the minimum previously thought sufficient for self-defence. Moreover, its military budget did not include pensions and annuities, which were and are subjects to the budget of the Ministry of Health and Welfare. The shift of security policy culminated in the UN Peacekeeping Operations Cooperation Bill, passed by both Houses in 1992. To prevent the use of force by Japanese soldiers abroad, the government insisted that the SDF would not be under operational command of the United Nations. The SDF would be permitted to utilise weapons only for self-defence, not as part of any organised military action. The peacekeeping bill ended the previous ban on dispatching troops abroad, even though it limited troop deployment to logistics and humanitarian support, monitoring elections, and providing aid in civil administration. These changes have triggered concerns about Japan's technological capabilities and active involvement in ARF security discussions. Highly sophisticated technological capabilities could allow Japan to become a nuclear power virtually overnight. Japan has called for a new security mechanism that might provide a useful framework for negotiations over the Taiwan and Korean peninsula issues; it might also pave the way for its involvement in the domestic affairs of other regional powers. The Clinton-Hashimoto communiqué of April 1996 outlined a revitalisation of the Japan-US security relationship and granted Japan a greater role in regional security. The bilateral defence arrangement would allow a significant contribution of Japan's logistics support to US combat forces in conflicts surrounding Japan, rather than within the Japanese archipelago. Such support missions might eventually lead Japanese forces into direct combat, especially in the sensitive areas of the Taiwan Strait, the South China Sea, and the Korean Peninsula.³⁰ The policy changes, according to the PLA, produced an excuse for SDF direct combat missions, because logistics support is part of military operations. If a Japanese support ship was attacked during an operation, Japanese soldiers would respond in the name of 'self-defence.' This mirrors a break from Japan's traditional reliance on the US for security issues, and the beginning of an independent Japanese voice--an enlarged role--in Asian security matters.

Japan emerges as a high-tech military power. The SDF is building an Integrated Defence Digital Network (IDDN), which will serve as a technologically advanced information grid for integrating defence capabilities all over Japan. Though a 1969 Diet resolution prohibited the SDF from utilising outerspace for military purposes, the MSDF and the GSDF activated a transponder on the American 'superbird' satellite in 1993, based on the government claims that the SDF could utilise the dual-purpose, not purely

military satellite.³¹ Japan's joint development of TMD with the US will enhance its capabilities against ballistic and battlefield missiles. Once it has this defence system, it may be tempted to develop and deploy an offensive weapons system, which would disrupt the balance of power in East Asia.³² More important, Japan remains militarily superior in East and Southeast Asia. The SDF weaponry inventory involves 64 surface combatants with four groups each consisting of eight destroyers (configured as a blue water navy), 3 Osumi tank landing ships (easily transformed into general purpose, amphibious assault ships or even small aircraft carriers), 15 attack submarines, 85 long-range patrol aircraft, 92 anti-submarine helicopters, and 154 F-15 fighters. Japan is the only State (outside of the USA) to acquire the superlative AEGIS fleet defence system (an electronic centre aimed at defending a taskforce of ships against possible missile and aircraft attacks), utilising the systems in the Kongo class destroyers. Kongo is an improved version of the USN Arleigh Burke, displacing 9,485 tons (full load) and is comparable to the USN's Ticonderoga class (CGAEGIS). It is a substantial departure for Japan in terms of size and capability for its surface fleet.³³ Despite the small size of the MSDF, a comparison of naval capacities will show qualitative differences between Japan's modernised ships, with well trained crews, and the older, less capable ships of other East and Southeast Asian navies. Technological innovations contribute to changes in Japan's operations, with emphasis on air/land battles, with operational art committed to initiatives, concentration, mobility, and surprise attacks.

Beijing regards Japan's military build-up as checking China and violating its internal affairs, especially with respect to Taiwan. Tokyo downplays China's deep concerns and reinterprets the concept of the 'Taiwan area' as a 'geographic,' rather than a 'political' concept. Prospects for Japan's military intervention in the PLA's potential operations lie not only in these policy shifts and increased military capabilities alone, but also in domestic and regional politics.

Japan's policy-making emphasises consultation and consensus. Usually, bureaucrats come across issues and consult with their relevant counterparts in their own ministry and in other ministries. As consensus emerges and opposition is forestalled, policy percolates up through the civil service hierarchy, ultimately to the cabinet and the Diet. Any potential conflicts with China may need Japan's broader reassessment of political, economic, military, and societal implications. The will and ability of the government to attract strong political and societal support is the most critical factor for the successful achievement of its policy option. Meanwhile, Japan is increasingly skeptical of the US military presence, arguing that the US military presence should fade with this century's end. The 1996 Okinawa referendum on US base reduction also mirrors such trends. For Okinawans, the central government was more interested in preserving Japan-US relations, than in protecting their rights. The referendum was, even though it did not speak with one voice, a turning point of relations among Okinawa, Tokyo, and Washington.³⁴ This unmonolithic nature of Japanese politics may provide a chance for Japan and China to avert potential conflicts.

The enduring suspicion and distrust of Japan by East and Southeast Asian states may deter Japan's involvement in a Taiwan strait crisis. Japan's UN peacekeeping

missions in Cambodia have been critically compared to “giving liquor chocolates to an alcoholic.”³⁵ Japan, of course, continues to defy regional requests for an apology and compensation for what its actions during Second World War, as well as regional concerns about its military muscle. Regardless of such contemporary and historical factors, however, the PLA's potential joint landing operations would obviously test and conclusively settle the ramifications of Japan's honouring the Japan-US Security Treaty with regards to China.

The United States

For China the worst nightmare is American military intervention, driven by its self-conception as the regional architect that shapes East Asian security and domestic partisan politics. Indeed, the US remains overwhelmingly powerful. Its strategic leadership is politically palatable. But it no longer sustains its important position in the western pacific, since forward deployments become costly. Its allies now share the costs of maintaining forward-deployed US forces on their soil. Japan pays virtually all local costs, including civilian employees' salaries, utility fees, and most of the construction expenses, since 1995; South Korea pays approximately 35 percent.³⁶ America's position in East Asia is already stretched thin. Its presence becomes symbolic.

China is neither friend nor foe of the United States. The US led the West to impose tough economic sanctions against China and isolated it in the international community, after the Tiananmen incident in 1989. The sanctions and isolation compelled Beijing to concentrate on neighbours, which in turn consolidated its position in East and Southeast Asia. Beijing and Taipei engaged in regular dialogues about informal economic and cultural exchange. Both agreed on the ideal of one China and the imperative of realising it through some form of reunification, even though they disagreed on which is the legitimate regime. The consensus collapsed as a result of Lee Teng-hui's visit to the United States in June 1995 as well as Taiwan's continuing campaign to re-enter the United Nations and other international organisations. The issues provoked PLA military exercises in the Taiwan Strait, the launching of land-based missiles off Taiwan and a stand-off between US aircraft carriers and the PLA. The American decision on the dispatch of two aircraft carrier battle groups may have sent wrong signals to both sides. Taipei infers that US intervention will deter PLA assaults, while it strengthens Beijing's perception that foreign intervention is aimed at separating Taiwan from China.³⁷ But gradually improved relations with the US subsequently culminated in US President Clinton's visit to Beijing in June, 1998. Clinton pledged, “We don't support independence for Taiwan, or two Chinas, or one Taiwan-one China. And we don't believe that Taiwan should be a member of any organisation for which statehood is a requirement.”³⁸ Whether this constituted a meaningful or lasting change in US policy, however, was a matter of conflicting interpretation.

The announced policy suggests that the United States will encourage the Chinese to find their best solution to solve the issue. By implication, the US may gradually back away from its commitment to a solution for the settlement of the Taiwan issue without the use of force. It would eventually pave the way for China to use force, if Taiwan declares independence. But Washington is also bound by the Taiwan Relations Act,

which calls for continued arms sales to Taiwan. The conflicting policy has created a dilemma. The US can not sit idly by and watch the PLA 'liberating' Taiwan, which would produce domino impacts on regional security, stability, and prosperity. Defence of Taiwan would entail direct American involvement in the conflicts, yet the US cannot afford to fight large-scale regional operations alone, politically, economically, and militarily.

The underlying dilemma reflects a deep division between a Congress committed to unilateralism and an executive favouring multilateralism. Despite this division, the US may be reluctant to commit its military muscles. Unilateral military intervention is unlikely, since joint landing operations may not threaten vital American interests in East Asia. Multilateral military intervention is also unlikely, since the American political elite and public do not trust international peacekeeping or peace-enforcing efforts that the US cannot fully control. Moreover, any attempts to build a coalition for military intervention in the name of the United Nations appear impossible. China would veto any possible resolutions for potential intervention. Without UN consent, most countries would shy away from a costly engagement. This may force the international community to accept the reunification of China through the use of force.

Potential military intervention, such as missile strikes or desert-storm style operations, might be ineffective as deterrence to joint landing operations. Taiwan is a small island. Lack of space to mass forces and support materials may compel interventionists to rely on pre-existing forward bases or other neighbour states for military build-up. The US has deployed merely one infantry division with two brigades and one air fighter wing in South Korea, while stationing a marine expeditionary force, an amphibious assault ship, an army special forces battalion, an aircraft carrier, and one and a half air fighter wings in Japan.³⁹ The American troops would not suffice to thwart the PLA's assaults on Taiwan, though far larger numbers could be mobilised. Worse still, these troops are becoming more vulnerable to attack by potential PLA battlefield missiles which are cheap compared to advanced bombers and aircraft carriers. Defending them will be very expensive, since the PLA may counter American missile defence with offsetting actions, such as making missiles fly faster or carry decoys to distract the defender's missiles. Without sufficient logistics support, combat troops, and missile defence countermeasures, intervention is hopeless.

Moreover, allowing the US to mass troops and logistics support may risk spreading limited landing operations to the entire East Asia. As the PLA insists, "we will not accept any rule to define limits or boundaries for operations, such as limited time, space, and means. If the enemy launches an aerial attack, we will wage a land attack; if he attacks us from the east, we will respond from the west." Such unlimited operations and historical burdens may paralyse any potential coalition, though US words and actions apparently continue to shape relations with South Korea and Japan. Despite continued pressure from the Congress, however, the Clinton administration refuses to make any explicit promises to defend Taiwan, while it also refuses any and all contrary assertion.

The settlement of the Taiwan issue depends, in the end, on the ability and willingness of regional powers to work on comprehensive security mechanisms which have binding force on all parties. This option highlights the fundamental weakness of the regional security arrangements. As a result of the different domestic policy orientations, concerns, and choices, none of regional powers want to raise the Taiwan issue seriously. ASEAN's low-key approach is designed to avoid any direct confrontations with China, and lack of political intentions and military capabilities will minimise any chance for it to be involved in cross-strait conflicts. Conversely, inspired by its political ambitions and military muscle, Japan sees China as a potential enemy and expresses deep concerns about cross-strait operations, but under Beijing's pressure, it is reluctant to specify its policy orientations and choices for possible intervention. The US pretends to serve as a buffer between Taipei and Beijing, so as to fail to make Taiwan the centrepiece of its strategy in East Asia. This fragmentation of regional security arrangements is closely associated with the unwillingness of regional powers to interfere in the 'domestic affairs' of 1.3 billion Chinese. Without a firm commitment by ASEAN, Japan, and the United States to deter or oppose potential intervention by the PLA, regional reactions may be limited to short-term economic sanctions and political condemnation.

CONCLUSION

Intentions do not necessarily mirror capabilities. China's insistence on its right to use force reflects a determination to achieve the security and policy choice flexibility reserved to a true great power, though it has not developed military capabilities strong enough to fight cross-strait operations. Yet the fragmented nature of and the interaction between domestic and regional politics may produce opportunities and crises which will have an impact on the likelihood of PLA joint landing operations in the 21st century.

First, PLA politics may strengthen soldiers' determination to fight short, lethal, joint landing operations. Operational results will depend on the PLA's ability to reformulate firepower or military technology-centred, joint operational art to make it compatible with joint landing operations. But current military decentralisation does not serve this purpose. The PLA's operational debates have failed to reach any consensus on solutions for the establishment of less costly, more offensively oriented naval and air forces, capable of challenging naval and air control of Taiwan. The force structure is pre-eminently that of a land power, due to the limitations of high-cost naval and air equipment, ineffective C31, and shortages of the technology and expertise necessary to implement desired force development designs. The issues will become the bottleneck of joint landing operations.

Second, a political-societal-military composite may compensate for the PLA's absence of power projection capabilities and resources. To make this composite possible, the Chinese state needs to legalise and institutionalise societal mobilisation for operations, while restructuring the PLA's logistics support units. The failure to achieve these objectives will eventually undermine the prospects for the building of tradition-derived logistics support structures. Without such structures, joint landing operations will be impossible.

Third, weak regional security arrangements may reduce, if not eliminate, the possibility of foreign military intervention, because they are politically and militarily dysfunctional in dealing with the Taiwan issue. Meanwhile, China is not ready to enter multilateral engagements to gain regional support or sympathy for its posture on the issue; nor is it ready to reconsider or change its posture. The dilemma remains: on the one hand, Chinese domestic support cannot protect the country from potential isolation; on the other hand, regional powers cannot control or significantly affect China's military operations against Taiwan.

Joint landing operations across the strait remain a possible option for China. Regardless of the short-term costs of such operations, the PLA is and will continue to be committed to retaining this option, but only if Taiwan should assert its political independence or lapse into internal chaos. The best option for solving the Taiwan issue once and for all is for Beijing, Taipei and other regional powers to arrive at an effective security arrangement. Such an arrangement is not only possible but, if pursued consistently, will in fact ensure greater regional prosperity. This cooperative option will remain real in the 21st century.

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